

School Entry Assessment Project



Report of Findings

Missouri Department of Elementary and Secondary Education
Robert E. Bartman, Commissioner

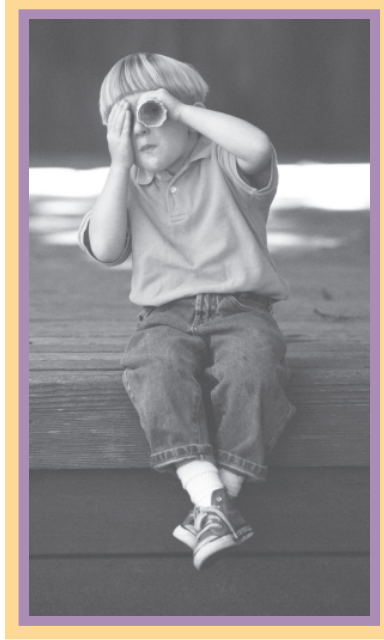
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Summary of Findings

- ✓ When Parents as Teachers (PAT) is combined with any other pre-kindergarten experience for high-poverty children, the children score above average on all scales when they enter kindergarten.
- ✓ The highest performing children participate in PAT and preschool or center care. Among children who participate in PAT and attend preschool, both minority and non-minority children score above average. Children in both high-poverty and low-poverty schools who participate in PAT and attend preschool score above average when they enter kindergarten.
- ✓ Among children whose care and education are solely home-based, those whose families participate in PAT score significantly higher.
- ✓ Special needs children who participate in PAT and preschool in addition to an early childhood special education program are rated by teachers as being similar in preparation to the average child.
- ✓ Head Start children who also participate in PAT and another preschool score at average or above when they enter kindergarten.

Purpose and Design of the Study

The Missouri School Entry Assessment Project forms part of Governor Mel Carnahan's Show-Me Results initiative designed to yield important information that will be used to support Missouri children's success in school. An interagency task force—comprised of the Missouri Department of Elementary and Secondary Education (DESE), the Department of Health, the Department of Mental Health, the Department of Social Services and the Department of Public Safety—is charged with creating and implementing a strategic plan to ensure that “all children enter school ready to succeed.”



The Missouri School Entry Assessment Project is a comprehensive early childhood assessment effort designed to gather information about the school readiness of children as they enter kindergarten in Missouri public schools and to collect data about their preschool experiences and access to health care. The results of the study will be used by the team and policymakers to improve educational, social, and health services to young children and their families.¹

The study, coordinated by the Project Construct National Center at the University of Missouri-Columbia and conducted in the fall of 1998 by Research & Training Associates, Inc. of Overland Park, Kansas, involved 3,500 kindergarten children from a stratified random sample of Missouri districts and schools. The population of Missouri public elementary schools was stratified on location and school poverty. A random sample of ten percent of schools was selected for participation. Of these, more than 80 schools agreed to participate.² All kindergarten teachers in sample schools were designated as participants, as were all children in their classrooms. Kindergarten teachers were trained to rate children's preparation for kindergarten using a School Entry Profile. The instrument consisted of 65 items that reflect important entry-level skills, knowledge, behaviors and dispositions in seven areas of development. Additionally, over 3,100 parents completed a Parent/Guardian Survey about their children. This survey provides important data about children's health, education and literacy experiences prior to kindergarten.

The *School Entry Profile*³ was built on prior instrumentation efforts. Aided by an expert panel of early childhood specialists, early childhood educators, kindergarten teachers and DESE directors of early childhood education and Title I, the instrument was revised to reflect areas of performance and assessment appropriate to kindergarten entry which are observable within the first six to eight weeks of school. The interagency task force provided direction and feedback in the development of the *Parent/Guardian Survey* to obtain information on children's pre-kindergarten experiences.

¹ The interagency task force explicitly acknowledged that all children are “ready” for kindergarten when they reach the chronological age for school entry established by the state of Missouri.

² Because of major district changes in organization and operation and prior commitments to professional development efforts, the Kansas City Missouri School District declined participation in the 1998-99 school year. Thus, none of their schools or children is represented in the findings.

³ See the *Student Observation Record* in Pfannenstiel, J.C. (1997). Kindergarten learning environments and student achievement: A study of constructivist and traditional teaching approaches. Overland Park, KS: Research & Training Associates, Inc.

Instrumentation

The purpose of the *School Entry Profile* is to identify and measure the equities and inequities of early life experiences known to promote school success or difficulty. It will be used to identify ways to address those inequities so all children will have access to opportunities that promote school success. The assessment was not designed, is not valid, and will not be utilized for purposes of screening children for school entry or assigning them to special programs.

The *School Entry Profile* was organized around seven conceptual areas that the expert panel agreed reflect important dimensions of school readiness and which build upon prior psychometric work in observational assessments in kindergarten. Conceptual areas and items measuring these areas were reviewed with the understanding that the skills and behaviors could be reliably observed within the beginning weeks of a school year. The areas identified include symbolic development, communication, mathematical/physical knowledge, working with others, learning to learn, physical development and conventional knowledge.

Items for the symbolic development, communication, mathematical/physical knowledge, working with others and learning to learn domains were assessed with a three-point scale: *almost always*, *occasionally/sometimes*, and *not yet/almost never*. Items comprising the physical development and conventional knowledge domains were scored *yes* and *no*.

Sixty-five items were either obtained from a previously developed instrument or were newly developed to reflect important kindergarten entry level skills, knowledge, behaviors or dispositions (see Appendix A for copy of instrument). However, it must be noted that items do not measure the entirety of what should be taught or assessed in kindergarten and thus are not appropriate for a pretest-posttest kindergarten evaluation design.

Alpha coefficient reliabilities for the symbolic development, communication, mathematical/physical knowledge, working with others, and learning to learn scales exceed .90, greatly exceeding the .70 criterion generally accepted for reliability (see Table 1 in Appendix B). The conventional knowledge scale demonstrated an acceptable .82 reliability coefficient. The physical development items did not form a scale; thus, the five items are reported as separate variables.

The *Parent/Guardian Survey* obtained information from parents on health issues, the child's participation in programs or preschool attendance, and the frequency of home literacy activities (see Appendix A for copy of instrument). Parents indicated whether their child had experienced or participated in each of the following prior to kindergarten: Parents as Teachers (PAT), First Steps, Early Childhood Special Education, Early Head Start, Head Start, public preschool, private preschool, child care at a center, parent care at own home, child care at own home, and child care at another private home. Additionally, for each experience, parents indicated the length of the child's participation (less than one year, 1-2 years, or more than 2 years) and whether preschool and child care experiences were in licensed or accredited facilities.

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Training for Kindergarten Teachers

Kindergarten teachers were required to attend a one-day training session on observation-based techniques designed to assess children's skills, knowledge, and social development and in working with parents/guardians to collect pertinent preschool and health care information. The objectives of the training sessions included the following:

- ✓ To gain an awareness of the importance of the School Entry Assessment Project within the broader scope of the state action plan to achieve the goal of ensuring that all students enter kindergarten ready to be successful in school.
- ✓ To understand that the purpose of the School Entry Assessment Project is to collect information to inform preschool practices and to recognize that it is not an evaluation of kindergarten teachers or kindergarten classrooms.
- ✓ To acknowledge the challenges of conducting systematic observations of children in the first quarter of the year given simultaneous priorities (e.g., getting to know the children and helping them adjust to school routines).
- ✓ To recognize that the *School Entry Profile* consists of observations of routine activities that occur in the kindergarten classroom.
- ✓ To recognize that the *Parent/Guardian Survey* consists of general information that is routinely collected.
- ✓ To help teachers recognize that information gained from these observations will be useful for meeting the needs of students and for establishing baseline data for measuring and reporting children's progress in the first quarter parent-teacher conferences.
- ✓ To ensure that kindergarten teachers are valid and reliable administrators of the *School Entry Profile*.
- ✓ To acknowledge the teacher's role in supporting parents/guardians in completing the *Parent/Guardian Survey*.



To maintain consistency in rating times for all children in the classroom, teachers were asked to rate all children on one domain at a time. Kindergarten teachers who served on the expert review panel recommended that ratings begin with the physical development domain because it is easy to observe and can be observed almost immediately. The instrument was structured in the order in which teachers were to observe and assess each domain.

Sample

Approximately 80 schools participated in the study: 22% represented urban areas, 22% represented medium-sized cities, and 57% represented small town or rural areas. Equal numbers of high- and low-poverty schools within each location participated. About 40% of sample children attend high-poverty schools and 60% attend low-poverty schools.

The sample of approximately 3500 kindergartners is representative of the statewide public school population on several indicators. Approximately equal proportions of males (51%) and females (49%) are represented in the sample. The racial/ethnic distribution of 83% non-minority students approximates the statewide population (see Table 2 in Appendix B). About 70% of minority children in the sample attend high-poverty schools and about two-thirds of non-minority children attend low-poverty schools. The average school-entry age is 5.8 years and ranges from 4 to 8 years.

Findings

Study findings are organized to respond to the following:

1. What are the pre-kindergarten experiences of Missouri children in terms of health, home literacy, childcare and education?
2. What are the pre-kindergarten experiences of Missouri children in terms of participation in state-sponsored programs, preschool attendance, and home-based care?
3. What are the relationships among children's characteristics at kindergarten entry (age, gender, poverty status, and minority status), their pre-kindergarten experiences, and school entry assessments on multiple domains?

Pre-Kindergarten Health Experiences

Almost 90% of parents of public school kindergartners responded to questions regarding several aspects of preventive health care in their child's pre-kindergarten years. Ninety-two percent of parents report that their child is covered by health insurance or Medicaid. Ninety-six percent of parents report that their child was immunized by age two and 98% indicate that their child received a health screening by age two. Ninety-seven percent of parents indicate that they *usually* had access to medical care for their child from birth to school entry; only 3% indicate that they *almost never* had access (see Table 3 in Appendix B).



Pre-Kindergarten Home Literacy Experiences

Parents indicated how frequently four indicators of home literacy occurred in the home: (1) someone in the home reads to the child; (2) someone in the home tells stories to the child; (3) the parent and child have conversations; and (4) the child looks at books and magazines at home. Parents overwhelmingly report that these literacy activities occur on at least a weekly basis or more frequently. Almost all parents (97%) indicate that the parent and child have conversations on a daily basis; for all practical purposes, this item is not a variable (see Table 1). Similarly, 90% of parents indicate that their child looks at books or magazines at home on a daily basis.



Parents describe more variation in literacy activities that indicate how frequently adults (or other children) read to the child or tell stories to the child. Seventy-two percent of parents report that their child is read to on a daily or almost daily basis; 24% indicate a weekly basis. Four percent of children are almost never read to at home. Almost one-half of parents indicate that someone tells stories to their child on an almost daily basis; slightly more than one-third is told stories on a weekly basis. About 15% of children are almost never told stories.

Table 1. Percentage Distribution of Child's Pre-Kindergarten Home Literacy Activities

Home Literacy Activities	Rarely or Never	Monthly	Weekly	Daily or Almost Daily
Someone in the home reads to child.	2	2	24	72
Someone tells stories to the child.	7	8	36	49
Parent and child have conversations.	<1	<1	2	97
Child looks at books and magazines.	<1	<1	8	90

Pre-Kindergarten Education and Child Care Experiences

Almost 90% of parents also responded to questions describing their child's pre-kindergarten experiences in and outside of the home. Among the earliest experiences available to children and their families is the Parents as Teachers (PAT) program. Similar to statewide records of participation, 42% of sample children participated in PAT. One-half of the children participated for more than two years, one-third participated for more than one year, and 17% participated for less than one year (see Table 4 in Appendix B). Children attending high-poverty schools and minority children participated in PAT in approximately the same percentages as their representation in the sample and population of children in Missouri. Almost 80% of children who participated in PAT also attended preschool. Only 15% of children who participated in PAT received only home-based services.

Children identified with special needs qualified for participation in the State's First Steps program or Early Childhood Special Education. About 6% of children participated in First Steps and a predominately different 7% participated in Early Childhood Special Education. Less than 20% of special needs children participated in both First Steps and Early Childhood Special Education. About 60% of children in First Steps participated

for less than one year; 22% of children in Early Childhood Special Education participated for less than one year. About 60% of Early Childhood Special Education children participated for one-to-two years. Fewer than 20% of children in either program participated for more than two years.



Parents access several types of preschool opportunities for their children: Early Head Start, Head Start, public preschools and private preschools. Six percent of children attend Early Head Start, 16% attend Head Start, 25% attend public preschool, and 33% attend private preschool. An unduplicated count of 58% of children entering public kindergartens attend some type or combination of preschools. About two-thirds of children attend preschool for 1-2 years.

Almost one-third of entering kindergartners has some experience with center-based child care. Of these children, 27% receive center-based care for less than one year, 35% for 1-2 years, and 38% for more than two years.

About two-thirds of children are cared for by a parent at their own home for some length of time. About 10% of children who were cared for by a parent had this experience for less than one year. Almost three-fourths of children cared for by a parent had the experience for more than two years.

One-fourth of children are cared for by an adult in their own home at some time during their pre-kindergarten years and almost one-half of children receive child care at another private home. About half of the children received these types of care for more than two years.

Licensing and Accreditation

Parents were asked whether the providers of preschool and child care services for their child are licensed and/or accredited. More than 80% of parents report to be knowledgeable about the licensing status of Head Start, public preschools, and private preschools. More than 90% of parents report to be knowledgeable about the licensing status of childcare centers and private homes (see Table 2.)

Fewer than 10% of parents indicate that their child's preschool and center care providers are unlicensed. About one-third of preschool and center care providers are known to be accredited and 15-20% are known to lack accreditation. About 60% of the private homes providing childcare are not licensed.

Table 2. Percentage Distribution of Licensed and Accredited Pre-Kindergarten Experiences

	Licensed				Accredited			
	Yes	No	Don't Know	N	Yes	No	Don't Know	N
Early Head Start	62	21	18	213	28	23	49	164
Head Start	77	9	14	419	32	15	53	323
Public Preschool	80	7	13	681	44	13	43	583
Private Preschool	78	10	13	987	33	20	48	862
Child care at a center	84	9	7	946	29	20	50	739
Child care at a private home	33	58	8	1289	NA	NA	NA	NA

The percentages of children who participate in various types of experiences does not reveal the complexity of children's home and out-of-home experiences prior to kindergarten. In the following section, children's experiences will be described in terms of patterns of experiences children are exposed to prior to kindergarten.

Patterns of Pre-Kindergarten Experiences

The 11 types of home and out-of-home pre-kindergarten experiences yielded hundreds of combinations of experiences. To simplify the data analysis, yet preserve the ability to investigate the impacts of complex experiences on school readiness, a system for categorizing experiences in ways that reflect areas of theoretical and past research interest was developed.⁴ Children were categorized in one of the following patterns of experience:



- ✓ Special education services—child participated in First Steps or Early Childhood Special Education (regardless of other experiences).
- ✓ Home only—child did not participate in any programs or preschools outside of a home setting.
- ✓ PAT only—child did not participate in any programs or preschools outside of a home setting but received home visits from PAT.
- ✓ Preschool only—child attended Early Head Start, Head Start, a public preschool or a private preschool.
- ✓ Center care only—child received center-based care as the only out-of-home experience.
- ✓ PAT + Preschool—child participated in PAT and preschool.
- ✓ PAT + Center care—child participated in PAT and received center-based care.
- ✓ Preschool + Center care—child attended preschool and received center-based care.
- ✓ PAT + Preschool + Center care—child participated in PAT, attended preschool, and received center-based care.

Parents of 16% of children report only home-based experiences for their child (see Table 3). These children did not participate in PAT or receive PAT home visits. Parents of another 6% of children report only home-based experiences for their child, but they did participate in PAT and received home visits. Children who attend high-poverty schools and minority children are not disproportionately represented among children who receive only home-based experiences.

⁴ Virtually all children experienced some type or combination of home care, whether with parents, other adults, or in other private homes. Thus, the initial classification of experiences did not employ these experiences except for the group of children who only had home-based experiences prior to kindergarten.

Table 3. Percentage Distribution of Pre-Kindergarten Experiences Of Entering Kindergartners

Home-Based Only	16
Home-Based with PAT	6
Center Care Only	7
PAT + Center Care	3
Preschool Only	24
PAT + Preschool	17
PAT + Preschool + Center Care	7
Preschool + Center Care	10
Special Education	10
	(3129)

About 7% of children receive only center care; an additional 3% participate in PAT and center care. Children who attend high-poverty schools are somewhat underrepresented and minority children are somewhat over-represented in this category of experiences.

Almost one-fourth of children's pre-kindergarten experiences consist of preschool attendance only; 10% of children attend Head Start as their only experience. About one-third of Head Start only participants are minority children—twice their representation in the sample.

Ten percent of children receive pre-kindergarten special education services. One-third of these children also participated in PAT, indicating that PAT is a major source of early referral for special needs children. Minority children participate in pre-kindergarten special education services at almost twice the rate they are represented in the sample. While 40% of sample children attend high-poverty schools, about 50% of children who received special education services attend high-poverty schools.

Almost one-half of parents report their child experienced various combinations of educational experiences prior to kindergarten.

Teachers Assessment of School Entry Performance

Teachers assessed children on 65 items in domains of physical development, symbolic development, communication, mathematical/physical knowledge, working with others, learning to learn, and conventional knowledge. Percentage distributions for each item by domain is contained in Table 5 in Appendix B.

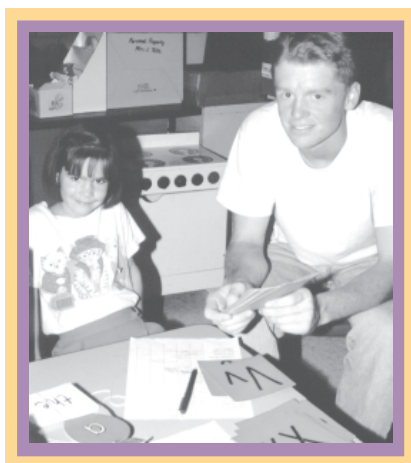
Teachers assessed the physical development of children on five indicators with a simple *yes/no* response format. Almost all children (98%) were described as physically active and appearing to be healthy. Ninety-five percent demonstrate gross motor skills (e.g., running, jumping, climbing stairs or skipping) and 94% practice personal hygiene. About three-fourths of children demonstrate fine motor skills (e.g., control of scissors or pencil) at school entry.



Descriptive statistics of teacher assessments of children's performance on the six scale domains are presented in Table 4. On average, children were rated the highest possible score (*almost always*) on 80% of the items measuring symbolic development, working with others, learning to learn, and conventional knowledge. Children were rated somewhat lower in communication and mathematical/physical knowledge—the domains typically considered to encompass the “basics” of kindergarten. On average, teachers rated children *almost always* on 75% of the mathematical/physical knowledge items. Only 71% of communication items were rated *almost always*.

Table 4. Descriptive Statistics for School Entry Profile Scales

	% Correct	Mean	s.d.	Range	% at Ceiling	N
Symbolic Development	80	16.7	3.9	7-21	27	3481
Communication	71	38.6	10.1	18-54	6	3380
Mathematical/Physical Knowledge	75	22.4	6.4	10-30	19	3407
Working With Others	80	16.2	3.9	7-21	20	3465
Learning to Learn	80	21.5	4.8	9-27	20	3475
Conventional Knowledge	81	8.9	2.2	1-11	28	3385



More than 25% of children score at the ceiling in symbolic development and conventional knowledge. In most areas, about 20% of children score at the ceiling. Only 6% of children score at the ceiling in communication. These descriptive statistics are consistent with the purpose of the instrument to measure entry-level status of kindergartners. It was not designed—and for many kindergartners it would not be possible—to measure change in performance or achievement over time.

Teachers were asked to rate each child in terms of his/her preparation for kindergarten: *above average preparation*, *average preparation* and *below average preparation*. One-third of children are above average and 25% are below average.

To investigate the correspondence between the empirically derived scores of observational assessments and teacher ratings of children as *above average*, *average* or *below average* in their preparation for kindergarten, mean scores for each rating were computed. Table 5 displays means of summed and standardized scores⁵ for children's scores and parent reports of the frequency of home literacy activities. Average summed scores provide a benchmark for interpreting the empirical points on each scale corresponding to teacher's interpretation that children have below average preparation for kindergarten.

Children rated *above average* in their preparation for kindergarten score three-quarters of a standard deviation above the average score of 100. They score almost a full standard deviation higher in their communication

⁵ Scale scores were standardized to a mean of 100 and a standard deviation of 15 to facilitate the interpretation of scale scores and comparisons across scales. Parent ratings of the frequency of home literacy activities were similarly standardized. Differences of 1/4 to 1/2 standard deviation are commonly interpreted as statistically significant and meaningful.

Table 5. Means of Scale Scores by Preparation for Kindergarten

	Standard Scores ⁶			Summed Scores		
	Above Average Preparation (N = 1129)	Average Preparation (N = 1459)	Below Average Preparation (N = 848)	Above Average Preparation (N = 1129)	Average Preparation (N = 1459)	Below Average Preparation (N = 848)
Symbolic Development	109.4	99.8	87.8	19.2	16.7	13.6
Communication	113.6	99.5	83.2	47.8	38.3	27.2
Mathematical/Physical Knowledge	112.2	100.5	83.4	27.6	22.6	15.4
Working with Others	110.5	99.5	86.9	18.9	16.1	13.9
Learning to Learn	111.7	100.0	84.7	25.3	21.5	16.6
Conventional Knowledge	110.0	102.9	81.9	10.4	9.3	6.2
HOME LITERACY: Read to child	102.9	99.7	96.4	3.8	3.6	3.5
Tell stories to child	101.3	99.9	98.3	3.3	3.3	3.2
Child converses with parent	101.7	100.1	97.2	4.0	4.0	3.9
Child looks at books & magazines	101.9	100.4	96.4	3.9	3.9	3.8

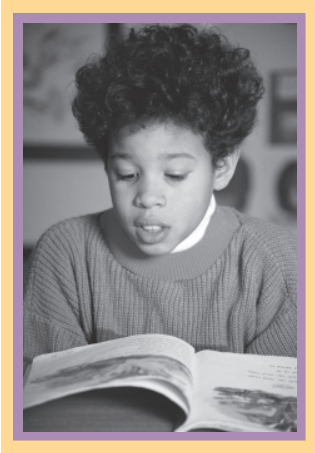
skills. Children rated above average lived in homes where parents report above average frequency of home literacy activities, a factor that was unknown to the kindergarten teacher rating the child. Children rated of *average preparation* score almost exactly at the mean of 100; similarly, their parents report an average frequency of home literacy activities. The 25% of children who were rated *below average* in their preparation for kindergarten are well below average—in almost all areas a full standard deviation below average. Their parents report lower frequencies of home literacy activities in all areas measured, but especially low in the frequency that the child is read to and reports of the child reading books and magazines in the home.

Children who attend high poverty schools score significantly lower than children in low poverty schools—but they approach average performance on most domains and are rated by their teachers as demonstrating average preparation for kindergarten (see Table 6). The most noted differences in their performance are in areas of mathematical/physical knowledge and conventional knowledge, where they score about one-third

Children rated above average [in preparation for kindergarten] lived in homes where parents report above average frequency of home literacy activities . . .

⁶ Scores are standardized to an average of 100 and a standard deviation of 15. Using the accepted criterion of one-fourth to one-third a standard deviation as representing significant and meaningful difference, a 4 or 5-point difference is interpreted as meaningful.

standard deviation below their low-poverty school counterparts. Parents of children in high-poverty schools report home literacy activities with average frequency except for the slightly lower frequency of reading to children.



Minority children score below average and somewhat lower (about three points) than non-minority children on all domains. Their lowest area of performance is the mathematical/physical knowledge domain. Parents of minority children in high-poverty schools report significantly lower frequencies for all home literacy activities. Their frequency of reading to the child is one-third standard deviation below average.

On average, males are rated significantly lower than females on all domains. Males are rated somewhat below average and females are rated somewhat above average. Parents report average frequency of home literacy activities for females but slightly below average literacy activities for males. Minority males who attend both high-poverty and low-poverty schools score significantly below average; non-minority males in high-poverty schools score somewhat below average (see Table 7). Only minority females in high-poverty schools score significantly below average; minority females in low-poverty schools and non-minority females in both high- and low-poverty schools score at or above average on all scales.

Children who attend preschool score above average and significantly higher than children who do not attend preschool. Their parents report home literacy activities of average frequency. Children who participate in PAT score significantly higher than children who do not participate in PAT. Parents of PAT participants report home literacy activities with somewhat higher frequency than do parents of children who did not participate in PAT.

Table 6. Means of Standardized Scale Scores by Background Characteristics and Pre-K Experience

	Males	Females	High-Poverty Schools	Low-Poverty Schools	Minority	Non-Minority	Preschool	No Preschool	PAT	No PAT
Symbolic Development	98.3	101.8	98.8	100.6	96.7	101.1	100.9	98.8	101.5	99.3
Communication	97.5	102.6	98.0	101.6	96.3	101.5	101.4	98.0	102.5	99.2
Mathematical/Physical Knowledge	98.4	101.7	96.5	102.4	95.3	101.6	101.4	98.1	102.3	99.2
Working with Others	97.6	102.5	99.2	100.6	96.6	101.2	100.9	98.7	102.0	99.2
Learning to Learn	97.7	102.4	99.4	100.4	97.1	101.2	101.0	98.6	102.1	99.3
Conventional Knowledge	98.2	101.9	97.1	102.3	96.6	101.4	101.8	97.6	102.4	99.3
Preparation for K	97.9	102.2	99.2	100.7	96.9	101.4	101.9	97.5	102.4	99.3
HOME LITERACY: Child is read to	99.0	101.0	97.9	101.6	95.4	101.0	100.5	99.2	101.6	98.9
Child is told stories	99.4	100.7	99.4	100.6	98.5	100.3	100.1	99.9	101.1	99.2
Child converses with parent	100.3	99.7	99.6	100.3	96.7	100.7	100.6	99.0	100.7	99.6
Child looks at books and magazines	98.7	101.3	99.5	100.2	98.5	100.4	100.6	99.0	101.0	99.4

Table 7. Means of Standardized Scale Scores by Poverty of School, Minority Status, and Gender

	High–Poverty Schools				Low–Poverty Schools			
	Minority		Non-Minority		Minority		Non-Minority	
	Male (190)	Female (168)	Male (434)	Female (423)	Male (82)	Female (74)	Male (820)	Female (823)
Symbolic Development	95	97	99	102	98	99	99	103
Communication	94	98	97	102	97	100	100	105
Mathematical/Physical Knowledge	92	94	97	100	99	101	102	104
Working with Others	95	98	99	104	94	100	99	103
Learning to Learn	95	99	99	103	96	99	99	103
Conventional Knowledge	95	96	97	101	99	101	101	104
Preparation for K	96	98	99	103	95	100	100	103
HOME LITERACY: Child is read to	94	94	98	101	99	101	101	103
Child is told stories	98	99	99	101	100	100	100	101
Child converses with parent	98	96	101	100	98	94	101	101
Child looks at books and magazines	99	98	99	101	98	98	98	102

Pre-Kindergarten Experiences and School Entry Performance

Children’s school entry performance for each category of pre-kindergarten experience is displayed in Table 8. Children who participated in special education services are described in a separate section.

Children who were home-based during their pre-kindergarten years perform the lowest among kindergartners. Children who were home-based and attend high-poverty schools score similarly to home-based children attending low poverty schools in all areas except for slightly lower scores in mathematical/physical knowledge and conventional knowledge (see Table 9). Thus, the lower scores of home only children are not largely affected by poverty—except in areas of mathematical/physical knowledge.

The effects of the lack of out-of-home experiences are particularly large for minority students (see Table 10). Non-minority home-based children score only slightly below average; minority home-based students score one-third to one-half standard deviation below average across domains. This difference is not explained by a lower frequency of home literacy activities. Except for a reported slightly lower frequency that the minority child converses with parents, both parents of minority and non-minority home-based children report an average frequency of home literacy activities. Out of home experiences appear to augment the literacy experiences that both minority and non-minority children are gaining in their homes.

Out of home experiences appear to augment the literacy experiences that both minority and non-minority children are gaining in their homes.

Table 8. Means of Standardized Scale Scores by Type of Pre-Kindergarten Experiences

	Home Only (N=431)	PAT Only (N=209)	Center Care Only (N=215)	Preschool Only (N=735)	Preschool & Center Care (N=329)	PAT & Center Care (N=106)	PAT & Preschool (N=551)	PAT, Preschool & Center Care (N=214)
Symbolic Development	98.9	100.2	99.9	100.1	100.7	102.4	102.6	104.5
Communication	98.7	100.8	100.3	100.2	100.5	103.8	104.3	104.7
Mathematical/Physical Knowledge	98.2	100.7	100.3	100.3	101.4	103.5	103.6	104.8
Working with Others	100.0	100.6	99.4	100.4	99.0	103.4	103.7	102.9
Learning to Learn	99.5	101.3	100.5	100.1	100.3	102.6	103.8	103.3
Conventional Knowledge	97.5	100.9	100.6	101.5	101.9	101.9	104.4	104.7
Preparation for K	97.6	100.8	100.4	100.5	101.9	100.5	104.6	104.2
HOME LITERACY: Child is read to	100.1	101.2	97.4	99.4	100.6	102.0	102.7	101.1
Child is told stories	100.3	101.4	98.3	98.8	100.7	101.3	101.7	99.5
Child converses with parent	99.7	100.9	99.4	101.6	100.2	101.2	100.6	101.5
Child looks at books and magazines	99.5	100.4	98.8	100.9	99.1	101.2	101.4	100.9

About one-third of home-based children were home with a parent and 20% were in another private home. Although parents who were home with their children throughout their pre-kindergarten years report home literacy activities with average frequency, their children score significantly below average on all domains except working with others and learning to learn. Children who were home with other adults demonstrate the lowest performance levels, but they comprise only 5% of home-based children. Only the home-based children who were in other private homes—which may well have approximated preschool experiences—score at average levels of performance and are rated by their teacher as having average preparation for kindergarten.

The highest performing children are those who participated in PAT combined with preschool, center care, or both experiences.

Among children who were home-based prior to kindergarten, those who participated in PAT and received home visits are the highest scoring children. They score at average and above average levels of performance on all scales and are rated by their teacher as having average preparation for kindergarten. Parents who participated in PAT and stayed home with their child read to their child significantly more frequently—about one-fourth a standard deviation more frequently—and their children are above average in their preparation for kindergarten. None of the types of home-based-only experiences described by parents for this study result in school entry performances that are meaningfully above average.

Children who only attend center care, those who only participate in preschool, and those who attend both center care and preschool score at average levels on school entry assessments. For children who attend center care only, however, those who attend high poverty schools as well as minority children score significantly below average. Minority children who are only in center care score more than one-half a standard deviation below average—and three-fourths a standard deviation below non-minority children in center care. Parents of center-only minority children who subsequently attend high poverty schools read to their children a full standard deviation less

frequently than do parents of center-only minority children who attend low poverty schools.

Overall average scores for “preschool only” children do not reveal the significantly lower performance of minority children who attend high poverty schools. Their parents report a significantly lower frequency (one-half standard deviation) of reading to their child—although they report average frequency of their child reading books and magazines. Parents of minority children in low poverty schools report average frequencies of home literacy activities and their children perform at average levels on most measures.



No poverty effects exist for children who attend both preschool and center care, but minority children in both high- and low-poverty schools score significantly lower on school entry assessments. Their parents report average frequency of home literacy activities.

The highest performing children are those who participated in PAT combined with preschool, center care, or both experiences. These children score about one-third standard deviation above average; they score significantly and meaningfully higher than those children who only attend preschool. Among children participating in PAT and preschool, both minority and non-minority children as well as children who attend high-poverty and low-poverty schools score above average. It appears that effects associated with poverty and minority status diminish as children participate in PAT and preschool prior to kindergarten entry. Children who attended public preschools scored above average as did children who attended private preschools. When PAT participation is combined with any other pre-kindergarten experience for high poverty children, they are above average on all scales when they enter kindergarten.

Special Needs Services and School Entry Performance

Children who receive special education services prior to kindergarten enter kindergarten significantly below average—about three-fourths a standard deviation. There are no significant differences in school entry performance for minority special needs children—even considering that parents of minority children are significantly less likely to read to or converse with their special needs child (one-half standard less frequently).

Children who only participate in special education score about one-third standard deviation lower than the average special education child and three-fourths standard deviation below the overall average.

The lowest performing special needs children are those who only attend Head Start. Parents of these children read to their children three-fourths of a standard deviation less frequently than the average parent. Parents of special needs Head Start children who participated in PAT report significantly higher and almost average frequency of reading to their child, but their children still score almost three-fourths a standard deviation below average when they enter school. Special needs children who participate in PAT and preschool (in addition to early childhood special education programs) are rated by their teachers similar in preparation as is the average child. The home literacy activities for special needs children is significantly and meaningfully higher for parents who participated in PAT and for parents whose child participated in PAT and preschool.

Special needs children who participate in PAT and preschool (in addition to early childhood special education programs) are rated by their teachers similar in preparation as is the average child.

Table 9. Means of Standardized Scale Scores by Type of Pre-Kindergarten Experiences For Children in High Poverty and Low Poverty Schools

	Home Only		PAT Only		Center Care Only		Preschool Only		PAT & Center Care		PAT & Preschool		Preschool & Center Care		PAT, Preschool & Center		Special Education	
	High (161)	Low (257)	High (95)	Low (109)	High (71)	Low (137)	High (282)	Low (419)	High (34)	Low (69)	High (228)	Low (311)	High (107)	Low (210)	High (84)	Low (127)	High (156)	Low (153)
Symbolic Development	99	98	97	102	95	101	98	101	103	101	102	102	100	100	104	104	94	96
Communication	99	98	97	102	95	101	98	101	103	101	102	102	100	100	104	104	94	96
Mathematical/Physical Knowledge	96	99	96	104	96	102	95	103	102	103	100	105	99	102	101	107	91	99
Working with Others	100	100	97	102	95	101	99	101	104	102	103	104	99	98	102	103	94	97
Learning to Learn	99	99	98	103	97	101	98	100	104	101	103	103	101	99	103	103	95	96
Conventional Knowledge	95	98	96	104	95	103	96	103	101	101	101	106	101	102	102	106	92	98
Preparation for K	97	97	99	101	98	101	98	101	100	99	103	105	104	101	105	103	94	97
Home Literacy: Child is read to	99	101	99	102	95	98	96	101	103	101	101	104	98	101	99	102	95	100
Child is told stories	100	101	102	101	98	99	97	100	104	100	101	102	100	101	99	100	100	99
Child converses with parent	99	99	101	101	100	99	100	101	102	100	99	101	100	100	102	101	97	99
Child looks at books and magazines	100	99	99	101	99	98	99	102	103	100	101	102	101	98	101	101	98	99

Table 10. Means of Standardized Scale Scores by Type of Pre-Kindergarten Experiences for Minority and Non-Minority Children

	Home Only (N=432)		PAT Only (N=209)		Center Care Only (N=217)		Preschool Only (N=737)		PAT & Center Care (N=106)		PAT & Preschool (N=551)		Preschool & Center Care (N=331)		PAT,Preschool & Center (N=214)		Special Education (N=334)	
	Min	N-M	Min	N-M	Min	N-M	Min	N-M	Min	N-M	Min	N-M	Min	N-M	Min	N-M	Min	N-M
Symbolic Development	94	99	95	101	92	101	98	100	100	102	100	103	96	101	98	105	96	96
Communication	95	99	93	102	92	102	97	101	96	104	99	105	96	101	100	105	96	95
Mathematical/Physical Knowledge	93	99	93	102	93	101	94	101	101	103	97	104	97	102	99	105	95	96
Working with Others	95	100	100	101	93	100	97	101	102	103	100	104	95	99	98	104	96	96
Learning to Learn	96	100	99	101	94	102	97	101	100	102	100	104	96	101	100	103	97	95
Conventional Knowledge	92	98	97	101	92	102	97	101	97	102	101	104	97	102	104	104	96	95
Preparation for K	94	98	95	101	93	102	97	101	93	101	102	105	98	102	101	104	95	96
Home Literacy: Child is read to	100	100	98	101	94	98	93	101	95	102	98	103	101	100	97	101	93	100
Child is told stories	99	101	105	101	93	99	97	99	103	101	101	102	103	100	98	100	99	100
Child converses with parent	97	100	94	102	98	99	101	101	102	101	88	102	98	100	97	102	94	100
Child looks at books and magazines	101	99	99	101	95	99	101	101	104	101	99	102	97	99	96	102	99	99
N	(62)	(359)	(21)	(181)	(40)	(166)	(138)	(578)	(9)	(94)	(63)	(480)	(50)	(272)	(38)	(172)	(90)	(228)

Appendix A

Study Instruments

Date Form was Completed ____ / ____

School Entry Assessment Project

Parent/Guardian Survey 1998-1999

Please respond to each item on this survey. For each question, darken the appropriate circle or write the requested information. **BE SURE TO USE A NUMBER 2 PENCIL.**

Child's Name: _____, _____ M. Initial _____
Last Name First Name

Person Completing Survey: ☐ Parent ☐ Guardian

Child's Race/Ethnicity (Mark all that apply.)

- ☐ American Indian or Alaska Native
- ☐ Black or African American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ Asian
- ☐ Hispanic or Latino
- ☐ White

Child's SSN ____ / ____ / ____ (optional)

Child: ☐ Male ☐ Female

Child's Date of Birth __ / __ / __ (mo/day/yr)

This section is about your child's health. Please darken the appropriate circle.

Is your child covered by health insurance or Medicaid? ☐ No ☐ Yes

Did your child receive the required immunization for 2-year olds by the time he/she was 2 years old?

☐ No ☐ Yes

Did your child have a health screening (a "well-baby" checkup) by 2 years of age? ☐ No ☐ Yes

From birth to school entry, rate your ability to access medical care for your child when it was needed.

☐ Usually ☐ Almost Never

This section is about your child's literacy activities. Please darken the circle that best describes how often each of the following occurs.

	Rarely or Never	Monthly	Weekly	Daily or Almost Daily
Someone in the home reads to my child.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Someone in the home tells stories to my child.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child and I have conversations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My child looks at books and magazines at home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Darken the Yes circle if your child **did** participate/receive services. For each item that you indicated Yes, please darken the corresponding circles that indicate the amount of time your child participated and whether the preschool/child care is licensed and/or accredited.

Did your child have this experience?			If yes, how long?			Licensed	Accredited				
	No	Yes	<i>less than one year</i>	<i>1-2 years</i>	<i>more than 2 years</i>	No	Yes	Don't Know	No	Yes	Don't Know
Parents as Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
First Steps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Early Childhood Special Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Early Head Start	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Head Start	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public preschool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private preschool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child care at a center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent care at own home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Child care at own home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Child care at another private home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

[illegible]

Social Security No.									
			-			-			
0	0	0		0	0		0	0	0
1	1	1		1	1		1	1	1
2	2	2		2	2		2	2	2
3	3	3		3	3		3	3	3
4	4	4		4	4		4	4	4
5	5	5		5	5		5	5	5
6	6	6		6	6		6	6	6
7	7	7		7	7		7	7	7
8	8	8		8	8		8	8	8
9	9	9		9	9		9	9	9

CODES								
County			District			School		
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9

A-2

School Entry Assessment Project
School Entry Profile
1998-1999

Please use a number 2 lead pencil to fill in the appropriate circles.

[illegible]

Date of Birth					
Month	Day		Year		
<input type="radio"/> Jan					
<input type="radio"/> Feb					
<input type="radio"/> Mar	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 19	<input type="radio"/> 0	<input type="radio"/> 0
<input type="radio"/> Apr	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 20	<input type="radio"/> 1	<input type="radio"/> 1
<input type="radio"/> May	<input type="radio"/> 2	<input type="radio"/> 2		<input type="radio"/> 2	<input type="radio"/> 2
<input type="radio"/> Jun	<input type="radio"/> 3	<input type="radio"/> 3		<input type="radio"/> 3	<input type="radio"/> 3
<input type="radio"/> July		<input type="radio"/> 4		<input type="radio"/> 4	<input type="radio"/> 4
<input type="radio"/> Aug		<input type="radio"/> 5		<input type="radio"/> 5	<input type="radio"/> 5
<input type="radio"/> Sept		<input type="radio"/> 6		<input type="radio"/> 6	<input type="radio"/> 6
<input type="radio"/> Oct		<input type="radio"/> 7		<input type="radio"/> 7	<input type="radio"/> 7
<input type="radio"/> Nov		<input type="radio"/> 8		<input type="radio"/> 8	<input type="radio"/> 8
<input type="radio"/> Dec		<input type="radio"/> 9		<input type="radio"/> 9	<input type="radio"/> 9

Social Security No.

			-			-			
0	0	0		0	0		0	0	0
1	1	1		1	1		1	1	1
2	2	2		2	2		2	2	2
3	3	3		3	3		3	3	3
4	4	4		4	4		4	4	4
5	5	5		5	5		5	5	5
6	6	6		6	6		6	6	6
7	7	7		7	7		7	7	7
8	8	8		8	8		8	8	8
9	9	9		9	9		9	9	9

Gender
<input type="radio"/> Male
<input type="radio"/> Female

Child eligible for free or reduced-price lunch?

☐ Yes ☐ No

CODES											
County			District			School					
0	0	0	0	0	0	0	0	0	0		
1	1	1	1	1	1	1	1	1	1		
2	2	2	2	2	2	2	2	2	2		
3	3	3	3	3	3	3	3	3	3		
4	4	4	4	4	4	4	4	4	4		
5	5	5	5	5	5	5	5	5	5		
6	6	6	6	6	6	6	6	6	6		
7	7	7	7	7	7	7	7	7	7		
8	8	8	8	8	8	8	8	8	8		
9	9	9	9	9	9	9	9	9	9		

Beginning Date for Observations: ___ / ___ / ___ Date of Completion: ___ / ___ / ___
Mo Day Year Mo Day Year

Based on your observations of this student, please rate him or her on each of the following items. These items represent a range of developmental behaviors. Please enter the requested information by darkening the appropriate circle. **Please darken only one circle for each item. BE SURE TO USE A NUMBER 2 PENCIL.**

Symbolic Development

	Almost Always	Occasionally/ Sometimes	Not Yet/ Almost Never
Takes part in interactive play with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses play themes (e.g., pretends to be a fireman).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Represents ideas and feelings through movement (e.g., acts like a butterfly, airplane, or truck).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creates or responds to music (e.g., claps hands to music, sings, dances, or plays musical instruments).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Represents ideas through construction (e.g., builds with blocks or other manipulatives).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses art (e.g., clay, paint, or crayons) to convey feelings and ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talks about his or her creations (e.g., talks about illustrations or constructions).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Communication

	Almost Always	Occasionally/ Sometimes	Not Yet/ Almost Never
Uses language to communicate ideas, feelings, questions, or to solve problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses language to pretend or create.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responds to questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follows directions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows interest in books.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses picture cues and/or context cues to construct meaning from text (e.g., when being read to).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits book-handling skills (e.g., knows how to hold a book and understands the direction of print).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reads environmental print (e.g., cereal boxes, logos, signs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responds to texts (e.g., talks about books, laughs, makes predictions, intones, questions, or compares).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifies letters in the alphabet (e.g., recognizes letter name).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognizes that there is a relationship between letters and sounds (e.g., recognizes the sound of a letter or gives a word that starts with the letter).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognizes that written spellings represent spoken words.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Reads" simple books (e.g., easy, beginning books or predictable books).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scribbles with intended meaning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses some letters in writing (e.g., letters from own name).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses letter-sound correspondence to write (i.e., invented spelling).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses a variety of resources (e.g., peers, books, environmental print) to facilitate writing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shares writing with others (e.g., tells others about the intended meaning in drawings and writing).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognizes first name in print.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mathematical/Physical Knowledge

	Almost Always	Occasionally/ Sometimes	Not Yet/ Almost Never
Classifies objects used in daily experiences (e.g., sorts knives, forks, and spoons, compares plastic dinosaurs, or identifies similarities and differences among beads).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writes some numbers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses numerical relationships to solve problems in daily life (e.g., uses numbers to take lunch count or to figure out how many cookies are needed so that everyone can have one).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orders things according to relative differences (e.g., arranges dolls according to height or trucks according to size).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes one-to-one correspondence (e.g., when playing a game, understands that "one" means to move his/her marker one space).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determines "same," "more than," and "less than" by comparing (e.g., looks at her own and another child's collection of buttons and says that she has more buttons than the other child).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses spatial relationships to solve mathematical problems (e.g., rearranges blocks so they can all fit in a container, solves simple puzzles).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows understanding of sequence of daily events (e.g., knows that recess comes after story time).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experiments with objects to produce effects (e.g., when playing with objects in water, may predict which objects will float and which objects will sink).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains own actions in manipulating objects (e.g., "The tower will fall if I put another block on top.").	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Working with Others

	Almost Always	Occasionally/ Sometimes	Not Yet/ Almost Never
Uses adults as resources (e.g., asks questions, requests materials).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiates conversation with familiar adults.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Works cooperatively with others in a give-and-take manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses peers as resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shares resources (e.g., toys, manipulatives) with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows sensitivity and respect for others (e.g., shares with others or offers comfort when someone is hurt or sad).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suggests appropriate solutions to conflicts (e.g., negotiates rules during play/work—who will go first, handles conflicts over materials by taking turns or playing together).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Learning to Learn

	Almost Always	Occasionally/ Sometimes	Not Yet/ Almost Never
Shows curiosity and interest (e.g., enjoys and notices new things in his/her environment).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explores and tries new things (e.g., is willing to try new activities and explore new materials).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Takes responsibility for belongings (e.g., hangs up coat, puts materials away).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes choices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stays focused and productive while playing/working independently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stays focused and productive while playing/working in a group.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows pride in accomplishments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Copes with frustrations and failure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talks about what he or she is learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE NOTE CHANGE IN RESPONSE FORMAT.

Yes No Physical Development

- ☐ ☐ Is physically active.
☐ ☐ Demonstrates gross motor skills (e.g., running, jumping, climbing stairs, or skipping).
☐ ☐ Demonstrates fine motor skills (e.g., control of scissors or pencil).
☐ ☐ Appears to be healthy.
☐ ☐ Practices personal hygiene.

Yes No Conventional Knowledge

- ☐ ☐ Tells first and last name.
☐ ☐ Knows how to contact an adult family member (e.g., knows a parent's or grandparent's home or work telephone number).
☐ ☐ Knows age.
☐ ☐ Knows birthdate (month and date).
☐ ☐ Recognizes some basic shapes (e.g., circle, square, triangle).
☐ ☐ Identifies basic colors.
☐ ☐ Counts by rote to 10.
☐ ☐ Recognizes and names some numbers to 10.

Based on your observations, how would you rate this child in terms of his/her preparation for kindergarten?

- ☐ Above Average Preparation ☐ Average Preparation ☐ Below Average Preparation

Appendix B

Tables

Table 1. Factor Scale Intercorrelations and Reliability Estimates¹

	1	2	3	4	5	6
Symbolic Development	.91					
Communication	.73	.95				
Mathematical/Physical Knowledge	.66	.85	.95			
Working With Others	.67	.72	.66	.90		
Learning to Learn	.69	.78	.73	.82	.92	
Conventional Knowledge	.51	.72	.72	.54	.61	.82

Table 2. Percentage Distribution of Racial/Ethnic Composition of Kindergartners

American Indian or Alaska Native	2.0
Black or African American	13.0
Native Hawaiian or other Pacific Islander	.1
Asian	.7
Hispanic or Latino	2.0
White	86.0 ²
Percent Indicating Single Race/Ethnicity	97.0
Percent Indicating White Only	83.0
Percent Indicating Black or African American Only	12.0
Percent Indicating Any Minority	17.0

Table 3. Parent Report of Pre-Kindergarten Experiences

	Percent	N
Covered by health insurance or Medicaid	92	3182
Immunized by age 2	96	3185
Received health screening by age 2	98	3152
Access to medical care:		
Usually	97	3161

¹ Cronbach alpha reliability estimates are provided on the diagonal.

² Percents total to more than 100 due to multiple racial/ethnic identities

Table 4. Percentage Distribution of Various Pre-Kindergarten Experiences and Length of Experience

% Participated	Experience	< 1 Year	1-2 Years	> 2 Years	N ³
42	Parents as Teachers	17	33	50	1206
6	First Steps	59	29	13	196
7	Early Childhood Special Education	22	59	19	186
6	Early Head Start	33	57	11	154
16	Head Start	23	72	5	457
25	Public Preschool	24	63	14	702
33	Private Preschool	15	61	24	936
58	Any Preschool				
32	Child care at a center	27	35	38	901
64	Parent care at own home	11	17	72	1641
25	Child care at own home	25	25	50	647
46	Child care at another private home	22	28	50	1292

³ N is the number of parents who provided length of participation data. A somewhat greater number of parents indicated the types of pre-kindergarten experiences their child had but did not indicate length of participation.

Table 5. Percentage Distribution of Items on the School Entry Profile

	<u>Almost Always</u>	<u>Occasionally/ Sometimes</u>	<u>Not Yet/ Almost Never</u>
Symbolic Development			
1. Takes part in interactive play with others.	63	29	7
2. Uses play themes (e.g., pretends to be a fireman).	52	36	12
3. Represents ideas and feelings through movement (e.g., acts like a butterfly, airplane, or truck).	44	39	17
4. Creates or responds to music (e.g., sings, dances, or plays musical instruments).	51	38	12
5. Represents ideas through construction (e.g., builds with blocks or other manipulatives).	53	37	9
6. Uses art (e.g., draws pictures with paint or crayons, makes objects with clay) to convey feelings and ideas.	48	38	14
7. Talks about his or her creations (e.g., talks about illustrations or constructions).	48	37	15
Communication			
8. Uses language to communicate ideas, feelings, questions, or to solve problems.	55	34	11
9. Uses language to pretend or create.	52	35	14
10. Responds to questions.	60	32	9
11. Follows directions.	54	35	11
12. Shows interest in books.	61	31	8
13. Uses picture cues and/or context cues to construct meaning from text (e.g., when being read to).	50	33	17
14. Exhibits book-handling skills (e.g., knows how to hold a book and understands the direction of print).	58	30	12
15. Reads environmental print (e.g., cereal boxes, logos, signs).	36	37	27
16. Responds to texts (e.g., talks about books, laughs, makes predictions, intones, questions, or compares).	48	35	18
17. Identifies letters in the alphabet (e.g., recognizes letter name).	47	29	24
18. Recognizes that there is a relationship between letters and sounds (e.g., recognizes the sound of a letter or gives a word that starts with the letter).	32	32	36
19. Recognizes that written spellings represent spoken words.	35	34	31
20. "Reads" simple books (e.g., easy, beginning books or predictable books).	25	29	45
21. Scribbles with intended meaning.	31	37	33
22. Uses some letters in writing (e.g., letters from own name).	33	32	36
23. Uses letter-sound correspondence to write (i.e., invented spelling).	14	21	65
24. Identifies letters in the alphabet (e.g., recognizes letter name).	47	29	24
25. Shares writing with others (e.g., tells others about the intended meaning in drawings and writing).	30	39	31
26. Recognizes first name in print.	72	16	12

	<u>Almost Always</u>	<u>Occasionally/ Sometimes</u>	<u>Not Yet/ Almost Never</u>
Mathematical/Physical Knowledge			
27. Classifies objects used in daily experiences (e.g., sorts knives, forks, and spoons, compares plastic dinosaurs, or identifies similarities and differences among beads).	54	34	12
28. Writes some numbers.	44	30	25
29. Uses numerical relationships to solve problems in daily life (e.g., uses numbers to take lunch count or to figure out how many cookies are needed so that everyone can have one).	39	36	25
30. Orders things according to relative differences (e.g., arranges dolls according to height or trucks according to size).	43	37	20
31. Makes one-to-one correspondence (e.g., when playing a game, understands that “one” means to move his/her marker one space).	53	31	16
32. Determines “same,” “more than,” and “less than” by comparing (e.g., looks at her own and another child’s collection of buttons and says that she has more buttons than the other child).	46	33	21
33. Uses spatial relationships in solving mathematical problems (e.g., rearranges blocks so they can all fit in a container, solves simple puzzles).	50	36	14
34. Shows understanding of sequence of daily events (e.g., knows that recess comes after story time).	47	35	18
35. Experiments with objects to produce effects (e.g., when playing with objects in water, may predict which objects will float and which objects will sink).	34	40	27
36. Explains own actions in manipulating objects (e.g., “The tower will fall if I put another block on top.”).	40	35	25
Working with Others			
37. Uses adults as resources (e.g., asks questions, requests materials).	53	36	11
38. Initiates conversation with familiar adults.	51	35	15
39. Works cooperatively with others in a give-and-take manner.	46	41	13
40. Uses peers as resources.	41	45	14
41. Shares resources (e.g., toys, manipulatives) with others.	52	39	10
42. Shows sensitivity and respect for others (e.g., shares with others or offers comfort when someone is hurt or sad).	51	37	12
43. Suggests appropriate solutions to conflicts (e.g., negotiates rules during play/work—who will go first, handles conflicts over materials by taking turns or playing together).	31	41	28
Learning to Learn			
44. Shows curiosity and interest (e.g., enjoys and notices new things in his/her environment).	61	32	6
45. Explores and tries new things (e.g., is willing to try new activities and explore new materials).	56	35	9
46. Takes responsibility for belongings (e.g., hangs up coat, puts materials away).	52	33	15
47. Makes choices.	60	33	7

	<u>Almost Always</u>	<u>Occasionally/ Sometimes</u>	<u>Not Yet/ Almost Never</u>
48. Stays focused and productive while playing/working independently.	46	34	19
49. Stays focused and productive while playing/working in a group.	44	37	19
50. Shows pride in accomplishments.	63	30	6
51. Copes with frustrations and failure.	43	39	18
52. Talks about what he or she is learning.	42	39	19

	<u>% Yes</u>
Physical Development	
53. Is physically active.	98
54. Demonstrates gross motor skills (e.g., running, jumping, climbing stairs, or skipping).	95
55. Demonstrates fine motor skills (e.g., control of scissors or pencil).	78
56. Appears to be healthy.	98
57. Practices personal hygiene.	94

Conventional Knowledge	
58. Tells first and last name.	94
59. Knows how to contact an adult family member (e.g., knows a parent's or grandparent's home or work telephone number).	45
60. Knows age.	96
61. Knows birthdate (month and date).	45
62. Recognizes some basic shapes (e.g., circle, square, triangle).	84
63. Identifies basic colors.	94
64. Counts by rote to 10.	89
65. Recognizes and names some numbers to 10.	81

66. Based on your observations, how would you rate this child in terms of his/her preparation for kindergarten?

Above Average Preparation	33%
Average Preparation	42%
Below Average Preparation	25%